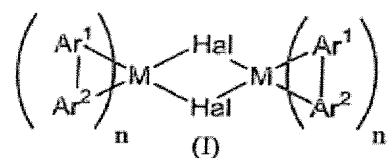


### Amendments to the Claims

1. (Previously presented) A method of forming a metal complex of formula  $M(\text{Ar}^1\text{Ar}^2)_n\text{L}$  comprising the step of reacting a compound of formula (I) with a bidentate ligand L:



wherein  $\text{Ar}^1$  and  $\text{Ar}^2$  are each independently an optionally substituted aryl or heteroaryl;  $\text{Ar}^1\text{-Ar}^2$  forms at least one carbon-M bond by reaction of M with a carbanion of  $\text{Ar}^1\text{-Ar}^2$ ; L is a compound of formula  $\text{Ar}^1\text{-Ar}^2$ ; M is iridium, rhodium, platinum or palladium; Hal is a halogen; and n is a number from 1-3 having a value necessary to satisfy the valency of metal M,

in the presence of an enabling ligand that is capable of breaking the halogen bridge of the compound of formula (I).

2. (Previously presented) A method according to claim 1 wherein Hal is bromine, chlorine or iodine.

3. (Previously presented) A method according to claim 1 wherein  $\text{Ar}^1\text{-Ar}^2$  is phenylpyridine.

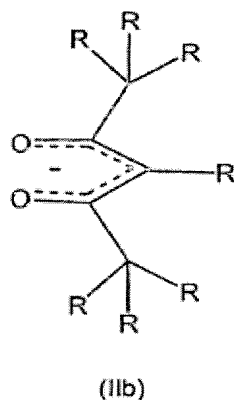
4. (Previously presented) A method according to claim 1 wherein  $\text{Ar}^1\text{-Ar}^2$  and L are the same.

5. (Withdrawn) A method according to claim 1 wherein  $\text{Ar}^1\text{-Ar}^2$  and L are different.

6. (Previously presented) A method according to claim 1 wherein the enabling ligand is a monodentate ligand.

7. (Previously presented) A method according to claim 6 wherein the monodentate ligand is selected from the group consisting of optionally substituted pyridine and triarylphosphine.

8. (Previously presented) A method according to claim 1 wherein the enabling ligand is a bidentate ligand of formula (IIb):



wherein each R is independently selected from the group consisting of H and a substituent.

9. (Previously presented) A method according to claim 8 comprising forming the ligand of formula (IIb) by treating a corresponding protonated compound with a metal-free base.

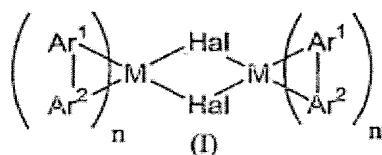
10. (Previously presented) A method according to claim 8 wherein each R is hydrogen.

11. (Previously presented) A method of forming a metal complex of formula  $M(\text{Ar}^1\text{Ar}^2)_n\text{L}$  comprising a first step of preparing a compound of formula (I) by reacting a compound of formula  $M(\text{Hal})_m$  with a compound of  $\text{Ar}^1\text{-Ar}^2$  and a second step according to claim 1, wherein m is a number necessary to satisfy the valency of M, comprising performing the first and second steps in a one-pot process.

12. (Previously presented) A method according to claim 1 comprising performing reaction in a protic solvent.

13. (Previously presented) A method of forming a metal complex comprising:

a) a first step of reacting a compound of formula  $M(\text{Hal})_m$  with a compound of formula  $\text{Ar}^1\text{-Ar}^2$  to form a compound of formula (I):

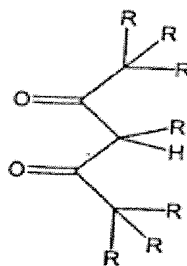


and

b) a second step of reacting the compound of formula (I) with a reactive ligand that is capable of breaking the halogen bridge of the compound of formula (I)

wherein  $\text{Ar}^1$  and  $\text{Ar}^2$  are each independently an optionally substituted aryl or heteroaryl;  $\text{Ar}^1\text{-Ar}^2$  forms at least one carbon-M bond by reaction of M with a carbanion of  $\text{Ar}^1\text{-Ar}^2$ ; L is a compound of formula  $\text{Ar}^1\text{-Ar}^2$ ; M is iridium, rhodium, platinum or palladium; Hal is a halogen; m is a number from 2-8 and n is a number from 1-3, m and n each having a value necessary to satisfy the valency of metal M, wherein the first and second steps are performed in a one-pot process.

14. (Previously presented) A method of forming a metal complex comprising the step of reacting a metal halide with a ligand of formula (II):



(II)

wherein each R is H or a substituent,

in the presence of a metal-free base of sufficient strength to deprotonate the compound of formula (II).

15. (Previously presented) A method according to claim 1 wherein Hal is chlorine.

16. (Previously presented) A method according to claim 9 wherein each R is hydrogen.

17. (Previously presented) A method according to claim 12 wherein the protic solvent is ethylene glycol.